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HOSPITAL PROGRAM FOCUSED ON SAFETY WITH NEW H130T2

ZIMBABWE’S ONLY FEMALE HELI PILOT
SAN GABRIEL FIRE RESPONSE
INSTRUMENT CHECKRIDE
BOEING AH-6i
The aviation helmet is one of the most important safety tools in the Personal Protective Equipment (PPE) bag. In selecting the right helmet, pilots and crew members need to consider several things before making a helmet work to their benefit.

Over the years, individuals who have been properly trained on selecting and fitting helmets sometimes modify their procedures for the sake of comfort. However, pilots urged not to lose sight of the intent of a properly fitted helmet. Pilots should consider both the short and long-term benefits of helmet usage, such as survivability, shock absorption, hearing loss mitigation and myalgia (muscle pain) mitigation in selecting the right helmet for the mission.

Unfortunately, short-term health benefits seem to be the main factor flight crews consider when shopping for the right helmet. This realization is further supported by a study conducted by Taneja and Wiegmann (2003). These researchers analyzed patterns of injuries sustained by pilots involved in fatal helicopter accidents as revealed through FAA autopsy data. A similar study conducted by the FAA’s Civil Aerospace Medical Institute (CAMI) revealed similar results regarding where pilots sustained the most injury when involved in fatal helicopter accidents.

Results from both research studies indicated that skull fractures were the second most common blunt force trauma, which occurred in 51 percent of the fatal accidents reviewed. Additionally, the brain was the most common (62 percent) of the organ/visceral traumas sustained in fatal helicopter accidents. Both studies looked at similar fatal accident cases involving public safety, law enforcement, HEMS, and aerial tour operations. It was not hard to conclude that proper helmet usage by helicopter pilots and crews is a smart idea.

When selecting a helmet, there are many different options that are acceptable, but all come with their own set of pros and cons. It is important to look at supporting test data to see if it provides proper protection. If specific test data is not provided up front; always ask for a copy of the test report from the manufacturer before making a final selection.

Every helmet will have to be properly fitted to the pilot or crew member wearing it by carefully following the manufacturer’s recommendations. The normal process for ensuring a proper fit is to provide adjustments in the harnessing of the helmet or to provide inserts to help with the proper fit. Once these steps are taken, small fine-tuning of the helmet can be done to eliminate ‘hot spots’ and for ensuring the ‘perfect fit.’

Helmet comfort and fit should always be emphasized during the evaluation process. In the worst case scenario, if the helmet is not comfortable, the pilot may frequently neglect its use altogether.

After wearing the properly fit helmet for a couple of months (especially through hot months), check it once again to ensure its comfort and protective properties have not changed. A simple test is to reach back and grasp the base of the helmet and pull forward. If the helmet slides off the head, it is too loose. Related to this is the common mistake of users not tightening the nape strap. When done properly, with a secure neck and nape strap, the helmet should be comfortable enough to be worn for several hours without causing significant fatigue.

The nape strap is a securing device under the occipital lobe (the bump on the lower back of your head). Being part of the harness, when snug not only does it keep the helmet from rotating forward but it also helps with the tightening of the ear cups as well. These simple steps will help prevent the helmet from rotating forward and will help mitigate hearing loss and ensure optimal protection.

When using a helmet, it is critical to ALWAYS have the visor down, either the tinted one or the clear one. This is mostly beneficial in case of a bird strike. Visor use is also important for crewmember during search & rescue operations to protect against sun glare.

A properly fitted helmet with its visor in use is an invaluable insurance policy for safety.

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